405 KAR 1:170. Water quality standards and surface water monitoring.

RELATES TO: KRS 350.420
STATUTORY AUTHORITY: KRS 350.028, 350.420
NECESSITY, FUNCTION, AND CONFORMITY: KRS 350.028 requires the Environmental and Public Protection Cabinet to adopt rules and administrative regulations for the strip mining of coal. This administrative regulation sets forth water quality standards and requirements for surface water monitoring.

Section 1. Water Quality Standards. (1) For the purpose of this administrative regulation, disturbed area shall not include those areas in which only diversion ditches, sedimentation ponds, or roads are installed and the upstream area is not otherwise disturbed by the mining operation. All sedimentation ponds required shall be constructed in accordance with this chapter and in appropriate locations prior to any mining in the affected drainage area in order to control sedimentation or otherwise treat water. Sedimentation ponds shall be certified by a qualified registered engineer as having been constructed as designed and as approved by the cabinet.

(2) The discharges from areas disturbed by strip mining and reclamation operations must meet all applicable federal and state laws and regulations and at a minimum in the following numerical effluent limitations:

Effluent Limitations, in Milligrams per Liter, mg/1, except for pH		
Effluent characteristics	Maximum allowable*	Average of daily values for 30 consecutive discharge days*
Iron, total	7.0	3.5
Manganese, total**	4.0	2.0
Total suspended solids	70.0	35.0
pH***	Within the range 6.0 to 9.0	

*Based on representative sampling.

**Applicable only when run-off prior to treatment has a pH less than six (6.0) or total iron greater than ten (10.0) mg/l.

***Where the application of neutralization and sedimentation treatment technology results in inability to comply with the manganese limitations set forth, the cabinet may allow the pH level in the discharge to exceed to a small extent the upper limit of nine (9.0) in order that the manganese limitations will be achieved.

(3) Any overflow or other discharge of surface water from the disturbed area demonstrated by the permittee to result from a precipitation event larger than a ten (10) year, twenty-four (24) hour frequency event will not be subject to the effluent limitations of subsection (2) of this section.

(4) The permittee shall install, operate, and maintain adequate facilities to treat any water discharged from the disturbed area that violates applicable federal or state laws or regulations or the

effluent limitations listed in subsection (2) of this section.

(5) If the pH of waters discharged from the disturbed area is normally less than six (6.0), an automatic lime feeder or other neutralization process approved by the cabinet shall be installed, operated, and maintained. If the cabinet finds that small and infrequent treatments are required to meet effluent limitations and do not necessitate use of an automatic neutralization process, and that the mine normally produces less than 500 tons of coal per day, then the cabinet may approve the use of a manual system if the cabinet finds that consistent and timely treatment can be assured by the permittee.

Section 2. Surface Water Monitoring. (1) A surface water monitoring program which meets the requirements of this section shall be prepared and submitted with the permit application, and this program shall be subject to the approval of the cabinet. The program shall:

(a) Provide adequate monitoring of all discharge from the disturbed area;

(b) Provide adequate data to describe the likely daily and seasonal variation in discharges from the disturbed area in terms of water flow, pH, total iron, total manganese (when the run-off prior to treatment has a pH less than six (6.0) or total iron greater than ten (10.0) mg/l) and total suspended solids and, if requested by the cabinet, any other parameters characteristic of the discharge;

(c) Provide monitoring at appropriate frequencies to measure normal and abnormal variations in concentrations;

(d) Provide an analytical quality control system including standard methods of analysis such as those specified in 40 CFR 136;

(e) Provide a regular report of all measurements to the cabinet within sixty (60) days of sample collection, unless violations of permit conditions occur in which case the cabinet shall be notified immediately after receipt of analytical results by the permittee. If the discharge is subject to regulation by a federal or state permit issued in compliance with the Federal Water Pollution Control Act Amendments of 1972 (33 USC 1251-1378) a copy of the reporting form supplied to meet the permit requirements may be submitted to the cabinet to satisfy the reporting requirements of this regulation if the data meet the sampling frequency and other requirements of this section.

(2) After disturbed areas have been regraded and stabilized in accordance with the provisions of this chapter, the permittee shall monitor surface water flow and quality. Data from this monitoring shall be used to demonstrate that the quality and quantity of run-off without treatment will be consistent with the requirements of this chapter to minimize disturbance to the prevailing hydrologic balance and to attain the approved postmining land use. These data shall provide a basis for approval by the cabinet for removal of water quality or flow control systems and for determining when the requirements of this administrative regulation are met. The cabinet shall determine the nature of data, frequency of collection, and reporting requirements.

(3) Equipment, structures, and other measures necessary to adequately measure and sample the quality and quantity of surface water discharges from the disturbed area of the permit area shall be properly installed, maintained, and operated and shall be removed when no longer required. (4 Ky.R. 493; Am. 5 Ky.R. 205; eff. 8-23-78; TAm eff. 8-9-2007.)